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6713-Rshd-99-126

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Heinrich GERS-BARLAG, et al.  
U.S. Serial No.: 10/031,539  
Filed : July 22, 2002  
For : EMULSIFIER-FREE FINELY DISPERSED SYSTEMS OF THE  
OIL-IN-WATER TYPE  
Art Unit : 1617  
Examiner : Yong Soo Chong

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January 13, 2006

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPELLANTS' BRIEF ON APPEAL PURSUANT TO 37 CFR § 41.37

Sir:

This is an appeal from the final rejection of an Examiner of Art Unit 1617.

1. REAL PARTY IN INTEREST

The instant application is owned by Beiersdorf AG, record owner hereof.

## 2. RELATED APPEALS AND INTERFERENCES

The undersigned is not aware of any appeals, interferences, reexaminations, infringement actions or the like in any related applications.

## 3. STATUS OF CLAIMS

The claims pending in this application are claims 1-3, 7-14 and 16-20; all of said claims are finally rejected and all of said claims are on appeal.

## 4. STATUS OF AMENDMENTS

The last amendment filed was a Rule 116 Amendment filed September 23, 2005 (by facsimile) and that amendment was not entered.

## 5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 relates to a novel cosmetic or dermatological preparation, in the form of a finely disperse water-in-oil system, which does not need any emulsifiers. The preparation comprises modified phyllosilicates, which exhibit both hydrophobic and lipophilic properties, and positions themselves at the water/oil interface. Although claim 1 permits up to 0.5% by weight of emulsifiers to be present, dependent claim 2 recites that the preparation is emulsifier-free.

## 6. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

The grounds for rejection to be reviewed on appeal are

- A) The rejection of claims 1, 3, 7-14 and 16-20 under 35 U.S.C. 102(e) as anticipated by Lanzendorfer et al (U.S. Patent 5,952,373).

B) The rejection claims 1-5 and 7-12 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al (WO 98/42300). [believed to be equivalent to US 6,440,399] in view of Msika et al (U.S. Patent 5,939,054) and Plaschke et al. (U.S. 6409996 B1).

C) The rejection of claims 13-20 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al., Msika et al., and Plaschke et al as applied to claims 1-5 and 7-12 as above, and further in view of Suzuki et al. (U.S. Patent 5,145,781)

## 7. ARGUMENTS

A) **The rejection of claims 1, 3, 7-14 and 16-20 under 35 U.S.C. 102(e) as anticipated by Lanzendorfer et al (U.S. Patent 5,952,373).**

This application pertains to novel emulsifier-free finely disperse systems of the water-in-oil type, preferably as cosmetic or dermatological preparations. The systems comprise modified phyllosilicates having amphiphilic character (page 9, 2<sup>nd</sup> full paragraph) which stabilize the emulsions (page 9, 5<sup>th</sup> full paragraph) and do not need any emulsifiers, although emulsifiers can be present in an amount of at most 0.5% by weight at most (page 9, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> full paragraphs).

Lanzendorfer's compositions take a variety of forms, including emulsions (col. 18, line 67). Lanzendorfer never even suggests that his emulsifiers could be emulsifier free (as required by Applicants' Claim 2) and, in fact, Lanzendorfer's emulsions need far more than the 0.5% maximum amount of emulsifier allowed by Applicants' claim 1.

Nowhere does Lanzendorfer teach or suggest any way of stabilizing an emulsion without emulsifiers, or that it would even be possible to stabilize an emulsion without an emulsifier, and all of his Examples require at least 3% by weight of an emulsifier. See, for example, col. 18, line 65 – col. 19, line 4; col. 18, line 11; col. 19, lines 48-53; col. 26, examples 11–15.

Every person skilled in the art, reading the word "emulsion", would understand that such requires an emulsifier and would be totally surprised to learn about an emulsion that is stabilized without the use of an emulsifier.

Moreover, Lanzendorfer neither teaches nor suggests anything at all about modified phyllosilicates.

In the advisory action of October 25, 2005, the Examiner contends that nowhere does Lanzendorfer mention that emulsifiers need to be present, and points to Examples 1-10 and 16-27.

The issue, however, is not whether or not Lanzendorfer mentions that emulsifiers need to be present, but whether Lanzendorfer mentions that they need not be present! In the absence of any teaching or suggestion that emulsifiers need not be present, those skilled in the art would understand that they are present. The presence of emulsifiers in an emulsion is the norm; the absence of same would be exceptional and surprising!

Moreover, the Examiner is absolutely incorrect!

First of all, it should be noted that not all of Lanzendorfer's (US 5,952,373) preparations are emulsions...emulsions are only one of many forms that the Lanzendorfer compositions may be prepared in (col. 18, line 65 – col. 19, line 4).

Secondly, at col. 18, paragraph beginning at line 65, Lanzendorfer teaches that

*"The cosmetic and dermatological formulations according to the invention can be in various forms. They can thus be, for example, a solution, an emulsion of the water-in-oil (w/o) type or of the oil-in-water (o/w) type, or a multiple emulsion, for example of the water-in-oil-in-water (w/o/w) or oil-in-water-in-oil (o/w/o), a gel, a solid stick or also an aerosol. They are prepared in a manner known per se."*

Those skilled in the art would realize that an emulsion "prepared in a manner known per se" would be prepared with an emulsifier.

To this end, at col 19, line 52, Lanzendorfer teaches that the emulsions of the invention use an emulsifier!

Thirdly, and more important, of the examples pointed to by the Examiner in the Advisory Action of October 25, 2005, Examples 1-3 are not emulsions. Of those Examples that are said to be emulsions, it should be noted that:

Examples 4, 5, 6, 7 and 9 include an emulsifier (Cetearith and Cetearyl Alcohol)

Example 8 includes an emulsifier (Cremophor A 25)

Example 10 includes an emulsifier (Arlacel 481)

Example 16 uses an emulsifier (Emulgade F)

Example 17 uses an emulsifier Lanette O

Example 18 is under the heading "Ionic O/W Emulsion", whereas applicants' claims pertain to water in oil emulsions

Example 19 is said to be a gel i.e. not an emulsion

Example 20 is said to be a Hydrogel i.e., not an emulsion

Example 21 uses an emulsifier (Brij 72)

Example 22 uses an emulsifier (Cetylstearyl Alcohol, Arlacel 165)

Example 23 uses an emulsifier (Arlacel 989, 481)

Example 24 uses an emulsifier (Arlacel 481)

Example 25 uses an emulsifier (Arlacel 481)

Example 26 is a hair rinse and includes a surfactant. Those skilled in the art would see that this emulsion is almost certainly stabilized by the surfactant.

Example 27 is a capsule, not an emulsion.

Applicants' emulsions, by contrast, are stabilized by modified phylosilicates, which exhibit both hydrophilic and lipophilic properties (i.e. are AMPHIPHILIC).

Nowhere does Lanzendorfer teach or disclose anything at all about amphiphilic phylosilicates or their ability to stabilize an emulsion.

Lanzendorfer therefore cannot possibly anticipate Applicants' claims. In addition, since there is no suggestion of any way to make an emulsion without an emulsifier, Lanzendorfer cannot be seen as suggesting Applicants' claims.

The rejection of claims 1, 3, 7-14 and 16-20 under 35 U.S.C. 102(e) as anticipated by Lanzendorfer et al (U.S. Patent 5,952,373) should accordingly be REVERSED.

**B) The rejection claims 1-5 and 7-12 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al (WO 98/42300). [believed to be equivalent to US 6,440,399] in view of Msika et al (U.S. Patent 5,939,054) and Plaschke et al. (U.S. 6409996 B1).**

The Gers-Barlag reference requires zinc oxide or titanium dioxide to stabilize the emulsions (col. 4, lines 33-40) and these are not modified in the sense that the word "modified" is used in Applicants' specification (see the discussion beginning at page 20, under the heading "Modified Phyllosilicates"). More specifically, the zinc oxide or titanium dioxide particles of Gers-Barlag are coated to repel water. This coating can be e.g. a thin hydrophobic layer (col. 4, lines 43-49). Appellants' phyllosilicates are modified e.g. by reaction with quaternary ammonium compounds (page 21, paragraph beginning 9 lines from the bottom of the page).

Msika, contrary to the Examiner's assertions, does not teach or suggest an emulsifier-free emulsion. The language referred to by the Examiner at col. 2, lines 1-9 does not concern an emulsion; just a dispersion. When Msika's compositions are produced in the form of an emulsion, emulsifiers are required (col. 4, lines 32-43; col. 5, line 19).

At col. 4, lines 32-34, Msika specifically teaches that:

It will be possible to produce an emulsion of the water-in-oil type. It contains an aqueous phase, a fatty phase and an emulsifying system.

Note that the Example at the bottom of col. 8 uses 10 g of emulsifier Dow Corning 3225C; which amounts to approximately 5% of the total formulation.

Nothing can be found in Msika about the use of phyllosilicates to stabilize an emulsion.



The Bentonite mentioned by the Examiner as being discussed at col. 3, lines 49-55, is used as a gelling derivative to optimize the stability of the product, but this language does not refer to an emulsion. The language mentioned by the Examiner at col. 4, lines 24-30 likewise does not refer to an emulsion. The preparation disclosed at col. 9, line 55 to col 10, line 14, is likewise not emulsifier free.

Plaschke just teaches compositions comprising flavanoids, and a way of obtaining the flavanoids; but has nothing to do with emulsions.

It is therefore not possible to see how any combination of these reference could possibly lead to Applicants' novel emulsions which are stabilized by modified phyllosilicates and comprise either no more than 0.5 % by weight of emulsifiers (claim 1) or none at all (claim 2). The rejection of Claims 1-5 and 7-12 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al. (WO 98/42300) in view of Msika et al. (US 5,939,054) and Plaschke et al. (US 6,409,996) should accordingly now be **REVERSED**.

**C) The rejection of claims 13-20 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al., Msika et al., and Plaschke et al as applied to claims 1-5 and 7-12 as above, and further in view of Suzuki et al. (U.S. Patent 5,145,781).**

The Examiner adds the Suzuki reference for a teaching of alpha-glycosyl rutin. The differences between Applicants' invention and anything that might be derived from the Gers-Barlag, Msika and Plaschke combination of references have been discussed

above. Alpha-glycosyl rutin cannot overcome any of those differences, and the addition of the Suzuki reference does not bring the Gers-Barlag, Msika and Plaschke combination of references any closer to Applicants' invention. The rejection of Claims 13-20 under 35 U.S.C. 103(a) as obvious over Gers-Barlag et al. (WO 98/42300), Msika et al. (US 5,939,054) and Plaschke et al. (US 6,409,996) as applied above, and further in view of Suzuki et al. (US 5,145,781) should accordingly be **REVERSED**.

#### 8. CONCLUSION

Wherefore it is submitted that the final rejection is in error and should be **REVERSED**.

#### AUTHORIZATION TO CHARGE FILING FEE TO DEPOSIT ACCOUNT

Appellant is:

☐ a small entity

☒ other than a small entity

It is requested that the fee for the filing of the Brief on Appeal be charged to the undersigned's Deposit Account No. 14-1263.

Please charge:

☐ \$ 250.00 for small entity

☒ \$500.00 for other than small entity.

#### CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, appellant requests that

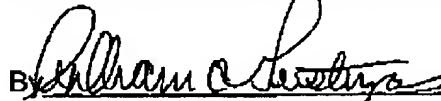
this be considered a petition therefor. Please charge the required Petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess to our Deposit Account No. 14-1263.

Respectfully submitted,

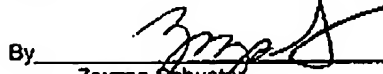
NORRIS McLAUGHLIN & MARCUS, P.A.

By   
William C. Gerstenzang  
Reg. No. 27,552

WCG/tmo

875 Third Avenue, 18th Floor  
New York, New York 10022  
(212) 808-0700

I hereby certify that this correspondence is being transmitted via facsimile, no. 571-273-8300 to the United States Patent and Trademark Office, addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 13, 2006.

By   
Zsuzsa Schuster  
Date January 13, 2006

## **9. CLAIMS APPENDIX**

The claims are appeal read as follows:

**Claim 1.** A cosmetic or dermatological preparation, which is a finely disperse water-in-oil system, comprising

- 1.** an oil phase,
- 2.** a water phase,
- 3.** one or more modified phyllosilicate, which exhibits both hydrophilic and lipophilic properties and positions itself at the water/oil interface ,wherein the content of one or more modified phyllosilicate is between 0.05% by weight and 20% by weight based on the total weight of the preparation,
- 4.** one of more flavone, flavanone and/or flavonoid ,wherein the content of one or more flavone, flavanone and/or flavonoid is from 0.01 to 5.0% by weight, based on the total weight of the preparation, and
- 5.** at most 0.5% by weight of one or more emulsifiers.

**Claim 2.** The preparation of claim 1, which is emulsifier-free.

**Claim 3.** The preparation of claim 1, wherein the further cosmetic or pharmaceutical auxiliaries, additives and/or active ingredients are present.

**Claim 7.** The preparation of claim 1 comprising one or more additives or active ingredients selected from the group consisting of antioxidants and UV filter substances.

**Claim 8.** The preparation of claim 1, wherein in addition to one or more modified phyllosilicate, further pigments are present wherein said further pigments are selected from the group consisting of boron nitride, modified polysaccharides, microfine polymer particles, micronized inorganic pigments and mixtures thereof.

**Claim 9.** The preparation of claim 8, wherein said micronized inorganic pigments

are amphiphilic metal oxides.

Claim 10. The preparation of claim 9, wherein said amphiphilic metal oxides are selected from the group consisting of titanium dioxide, zinc oxide, iron oxides, iron mixed oxides, silicon dioxide, silicates and mixtures thereof.

Claim 11. The preparation of claim 1, wherein the content of one or more modified phyllosilicate is between 0.1% and 5% by weight based on the total weight of the preparation.

Claim 12. The preparation as in claim 1, wherein the content of one or more flavone, flavanone and/or flavonoid is from 0.1 to 2.0% by weight, based on the total weight of the preparation

Claim 13. The preparation of claim 1, wherein the one or more flavone, flavonone and/or flavonoid is a flavone glycoside selected from the group consisting of  $\alpha$ -glucosylrutin,  $\alpha$ -glucosylmyricitrin,  $\alpha$ -glucosylisoquercitin and  $\alpha$ -glucosylquercitin.

Claim 14. The preparation of claim 13, wherein the flavone glycoside is  $\alpha$ -glucosylrutin.

Claim 16. The preparation of claim 1, wherein the one or more flavone, flavanone and/or flavonoid is a flavone glycoside selected from the group consisting of  $\alpha$ -glucosylrutin,  $\alpha$ -glucosylmyricitrin,  $\alpha$ -glucosylisoquercitin and  $\alpha$ -glucosylquercitin.

Claim 17. The preparation of claim 16, wherein the flavone glycoside is  $\alpha$ -glucosylrutin.

Claim 18. The preparation of claim 11, wherein the content of one or more flavone, flavanone and/or flavonoid is from 0.1 to 2.0% by weight, based on the total weight of the preparation.

**Claim 19.** The preparation of claim 18, wherein the one or more flavone, flavanone and/or flavonoid is a flavone glycoside selected from the group consisting of  $\alpha$ -glucosylrutin,  $\alpha$ -glucosylmyricitrin,  $\alpha$ -glucosylisoquercitin and  $\alpha$ -glucosylquercitin.

**Claim 20.** The preparation of claim 19, wherein the flavone glycoside is  $\alpha$ -glucosylrutin.

#### 10. EVIDENCE APPENDIX

No evidence under §§ 1.130, 1.131, or 1.132 has been submitted.

**11. RELATED PROCEEDINGS APPENDIX**

There have been no decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37